

REMARKS

In this Office Action, the Examiner objected to claims 1-5 because of the following informalities:

- The phrase "such railway car mounted brake assembly" in claim 1;
- The phrase "such control linkage" in claim 5.

The Examiner then objected to the remaining claims due to their dependency from claim 1.

Although the Examiner did not specifically identify why conventional use of word "such" is an informality, all claims have been amended to replace --such-- with "the".

Accordingly, the Examiner is respectfully requested to withdraw objection to claims 1-5 because of the informalities.

Next, the Examiner rejected claims 1-13, 16-18, and 22 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In support of this rejection the Examiner stated that

"Re: claim 10. The phrase "end thereof in the last line should be reworded to clearly set forth which element the term thereof intends to refer to.

Claim elements "means connected...for securing said actuating member to an actuating linkage of such railway vehicle brake assembly" first recited in claim 1, "guide means directly connected...for guiding and alignment ...bag actuator" in claim 6, "securing means connected...for enabling attachment

of said apparatus to a rigid structure" in claim 6, "a second guide means...for guiding...bag actuator" in claim 7, "a means connected...for securing said first substantially vertically...brake assembly" in claim 9, "a guide means connected...for guiding and alignment...bag spring" in claim 9, "a securing means connected...for enabling attachment of said air spring actuator assembly to a rigid structure" in claim 9, "means disposed therein for limiting reciprocal motion of said air spring actuator" in claim 11, "means for limiting reciprocal motion of said brake actuator" in claim 12, "means for visual determination of a travel length" in claim 16, "means disposed therein for controlling volume of air in said at least one air bag spring" in claim 18, "guide mean" connected...for guiding" in claim 22, and "securing means connected...for attaching" in claim 22 are means (or step) plus function limitations that invokes 35 U.S.C. 112, sixth paragraph. However, the written description fails to clearly link or associate the disclosed structure, material, or acts to the claimed function such that one of ordinary skill in the art would recognize what structure, material, or acts perform the claimed function. Examiner also notes that the means plus function phrases that are modified by such language as "connected to", "directly connected to", "disposed therein", etc. include structure raising issues with respect to the invoking of 112 -6th paragraph. Finally, it is unclear whether the phrase "visual travel determination means" in claim 17 is intended or not to represent means plus function language."

Thus, the Examiner required Applicant to:

- (a) Amend the claim so that the claim limitation will no longer be a means (or step) plus function limitation under 35 U.S.C. 112, sixth paragraph; or
- (b) Amend the written description of the specification such that it clearly links or associates the corresponding structure, material, or acts to the claimed function without introducing any new matter (35 U.S.C. 132(a)); or
- (c) State on the record where the corresponding structure, material, or acts are set forth in the written description of the specification that perform the claimed function.

For more information, see 37 CFR 1.75(d) and MPEP §§ 608.01 (o) and 2181. The remaining claims are rejected due to their dependency from a rejected claim.

In accordance with the Examiner's requirement, term --means-- has been replaced with either "structure" or "member" throughout the claims. In case the Examiner finds that a different terminology may be more suitable to resolve this rejection, Applicants respectfully request that such terminology is incorporated by the Examiner's amendment.

Accordingly, the Examiner is respectfully requested to withdraw the rejection of claims 1-13, 16-18, and 22 under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Moving now onto more substantive matters, the Examiner rejected claims 1-3, 5-7, 9, 11-13, and 18 under 35 U.S.C. 103(a) as being unpatentable over US Patent 6792704 to Johnson in view of US Patent 6116385 to Ring. The Examiner stated in support of this rejection that

"Re: claim 1. Johnson shows in figures 1 and 2 an actuating member capable of being used for a railway vehicle brake assembly, such vehicle brake assembly having an air bag actuator 1 incorporated therein, said actuating member comprising: a first substantially vertically disposed plate like member or one of elements 20, said first substantially vertically disposed plate like having a first

substantially planar surface engageable, via intervening elements 18(b), with a first surface of a second substantially vertically disposed plate like member or other of elements 20 attached to such air bag actuator, a substantially horizontally disposed plate like member 18(b) connected to the first substantially vertically disposed plate like member adjacent a bottom edge thereof and extending substantially perpendicular to the first planar surface of the first vertically disposed plate member for shielding at least a first portion of the air bag actuator from foreign material as shown, and a means 17 connected to a radially opposed second surface of the first vertically disposed plate like member via intervening elements for securing the actuating member to a control linkage 5 of the assembly.

Johnson is silent with regards to the vehicle brake assembly being a railway vehicle brake assembly.

Ring teaches in figures 1 and 3 the use of a brake assembly being in the form of a railway vehicle brake.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified vehicle brake assembly of Johnson to have been a railway vehicle brake system, as taught by Ring, in order to provide a means of controlling movement between components of a rail vehicle to improve the feel of the ride on the rail vehicle.

Re: claims 2 and 3. Johnson, as modified, shows in figures 1 and 2 of Johnson wherein the actuating member further includes a first plate like member 19 connected to an upper surface of the substantially horizontally disposed member via intervening elements and to the first planar surface of the first substantially vertically disposed plate like member adjacent a first side edge thereof and extending substantially perpendicularly to at least the substantially horizontally disposed member for shielding at least a second portion of such air bag actuator from the detrimental extraneous foreign material and for providing added strength between the first substantially vertically disposed member and the substantially horizontally disposed member. With regards to claim 2, the second plate like member is the other element 19 shown behind element 4 in figure 2.

Re: claim 5. Johnson, as modified, shows in figure 1 of Johnson the means 17 including at least one plate member 17 having an aperture formed therethrough shown surrounding element 12 and a pin member 12 disposed in the aperture for securing the at least one plate member to such control linkage.

Re: claim 6. Johnson shows in figures 1 and 3 an apparatus for mounting an air bag actuator to at least one brake beam, the air bag actuator having at least one inflatable air bag spring 3, the apparatus comprising: a first substantially vertically disposed plate like member or one of elements 20 having a planar surface portion for engagement with a substantially planar surface portion of a second substantially vertically disposed plate like member or the other of elements 20 connected to such air bag actuator, the first substantially vertically disposed plate like member exposing at least a first portion of an exterior surface of such at least one inflatable air bag spring to an atmospheric operating environment characterized by a presence of detrimental extraneous foreign when such car mounted brake assembly is in use, a guide means 18(a) directly connected to and disposed closely adjacent a first outer edge of and substantially perpendicular to the planar surface portion of the first substantially vertically disposed plate like member for guiding and alignment during reciprocal motion of such air bag actuator and a securing means 12,17 connected to the first substantially vertically disposed plate like member via intervening element such as element 13 for enabling attachment of the apparatus to a rigid structure.

Johnson is silent with regards to the vehicle brake assembly being a railway vehicle brake assembly.

Ring teaches in figures 1 and 3 the use of a brake assembly being in the form of a railway vehicle brake.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified vehicle brake assembly of Johnson to have been a railway vehicle brake system, as taught by Ring, in order to provide a means of controlling movement between components of a rail vehicle to improve the feel of the ride on the rail vehicle.

Re: claim 7. Johnson, as modified, teach in figures 1 and 2 of Johnson, the limitation wherein the apparatus includes a second guide means 18(b), the second guide means directly connected to and disposed closely adjacent a second outer edge of and substantially perpendicular to the planar surface portion of the first substantially vertically disposed plate like member for guiding and alignment during reciprocal motion of the air bag actuator.

Re: claim 9. Johnson shows in figures 1 and 2 an air spring actuator assembly, the air spring actuator assembly comprising: at least one air bag spring 3 having at least a first portion of an exterior surface exposed to an atmospheric operating environment characterized by a presence of detrimental extraneous foreign material during use of the air spring actuator assembly, a first substantially vertically disposed plate like member or one of elements 20, the first substantially vertically disposed plate like member having a first substantially planar surface engageable with a first surface of a second substantially vertically disposed plate like member or the other of elements 20 attached to the at least one air bag spring, a substantially horizontally disposed plate like member 18(b) connected to the first substantially vertically disposed plate like member adjacent a bottom edge thereof and extending substantially perpendicular to the first substantially planar surface of the first substantially vertically disposed plate like member for shielding the at least said first portion of the exterior surface of the at least one air bag spring from the detrimental extraneous foreign material, a means 4 or elements 19 in front and back of element 4 connected via intervening elements to a radially opposed second surface of the first substantially vertically disposed plate like member for securing the first substantially vertically disposed plate like member to a control linkage 6 of a vehicle brake assembly via intervening elements, a third substantially vertically disposed plate like member or one of elements 17 having a second planar surface portion for engagement with a substantially planar surface portion of a fourth substantially vertically disposed plate like member or other of elements 17 via intervening elements connected to the at least one air bag spring via intervening elements, a guide

means 18(a) connected to and disposed closely adjacent a first outer edge of and substantially perpendicular to at least one of the first substantially planar surface and the second planar surface portion of a respective one of the first and the third substantially vertically disposed plate like member for guiding and alignment during reciprocal motion of the air bag spring and a securing means 12 or 35 connected to the third substantially vertically disposed plate like member for enabling attachment of the air spring actuator assembly to a rigid structure.

Johnson is silent with regards to the vehicle brake assembly being a railway vehicle brake assembly.

Ring teaches in figures 1 and 3 the use of a brake assembly being in the form of a railway vehicle brake.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified vehicle brake assembly of Johnson to have been a railway vehicle brake system, as taught by Ring, in order to provide a means of controlling movement between components of a rail vehicle to improve the feel of the ride on the rail vehicle.

Re: claims 11 and 12. Johnson, as modified, shows in figures 1 and 2 of Johnson the means for limiting reciprocal motion being in the form of a plate shown between the top of air spring 3 and the plate 18(a).

Re: claims 13 and 18. See the air inlet connected to the line on which elements 26 and 27 are located as shown in figure 2 of Johnson. The means for controlling volume of air includes element 26."

Regarding the rejection of claim 1, the Examiner is respectfully requested to note that for the sake of moving the prosecution of this application forward such claim has been amended in paragraph (a) to recite "a first substantially vertically disposed plate member, said first substantially vertically disposed plate member having a first substantially

planar surface abuttingly engageable with a ~~first surface of a~~
~~second~~ substantially vertically disposed ~~plate member attached~~
~~to such~~ surface of the air bag actuator..." and has been further
amended in paragraph (b) to recite "a substantially horizontally
disposed plate member ~~connected~~ attached to said first
substantially vertically disposed plate member adjacent a bottom
edge thereof..."

It is clearly shown in FIGS. 1-2 that the inner surface of the
plate (part of 60) abuts (or abuttingly engageable with) the
surface (52) of the air bag actuator (50) and that the second plate
member (64) is attached to the bottom edge of the plate member
having apertures (68) formed therethrough. No new matter has been
added.

Thus, Applicant demonstrated possession of the invention by
disclosure of the FIGS. 1-2 which are sufficiently detailed (See
e.g., *Vas-Cath*, 935 F.2d at 1565 19 USPQ 2d at 1118) and in *re*
Wolfensperger, 302 F.2d 950, 133 USPQ 537). It has been also
held that "In those instances where a visual representation can
flesh out words, drawings may be used in the same manner and
with the same limitations as the specification" (*Autogrio Co. of*
America v. United States, 384 F.2d 391, 398, 155 USPQ 697, 703).

In view of the above amendments, Johnson clearly does not
teach all of the claim limitations, as its element (20) does not
abuttingly engages the surface of the air bag (3).

Furthermore, regarding the rejection of claim 1, the Examiner stated that *"Johnson shows in figures 1 and 2 an actuating member capable of being used for a railway vehicle brake assembly..."* This is a mere allegation by the Examiner since there is no evidence or suggestion in Johnson that his actuator is suitable for use on the railway vehicle braking system. Johnson's invention is in the art of snowplow vehicle and, more specifically, for the purpose of controlling contact between ground engaging components of the snowplow and the road.

In the response to Applicants' arguments filed 1/9/09, the Examiner replied that *"Examiner notes that Johnson's airbag actuator acts in the environment of a vehicle. Since a railway vehicle is a vehicle, there is nothing to suggest that the air bag actuator could not function in another type of vehicle."*

In one aspect, the Examiner did not provide any factual evidence (articulated reasoning with some rational underpinning) that the air bag of Johnson can be employed in the brake system of the present invention. The Examiner is clearly using Applicant's invention as a template through a hindsight reconstruction of Applicants claims." *Ex Parte Crawford et al*, Appeal 20062429, Decided May 30, 2007"

In another aspect, since the Examiner clearly admits that snowplow vehicle and railway vehicle operate in the same environment, Applicants do not see a motivation or reason to

combine the references as advanced by the Examiner, since claim 1 is directed to a component of the braking device and Ring does not contribute to the structure of claim 1.

Thus, it is believed that the combination of Johnson and Ring fails to establish *prima facie* case of obviousness of the claimed invention of the independent claim 1.

Regarding the rejection of claim 6, that for the sake of moving the prosecution of this application forward such claim has been amended to recite "a first substantially vertically disposed plate member having a planar surface portion ~~for engagement with~~ thereof abuttingly engaging a substantially planar surface portion of ~~a second substantially vertically disposed plate member connected to such~~ the air bag actuator..."

It is clearly shown in FIGS. 1-2 that the inner surface of the (80) abuts the surface (56) of the air bag actuator (50). No new matter has been added.

Thus, Applicant demonstrated possession of the invention by disclosure of the FIGS. 1-2 which are sufficiently detailed (See e.g., *Vas-Cath*, 935 F.2d at 1565 19 USPQ 2d at 1118) and in *re Wolfensperger*, 302 F.2d 950, 133 USPQ 537). It has been also held that "In those instances where a visual representation can flesh out words, drawings may be used in the same manner and with the same limitations as the specification" (*Autogrio Co. of America v. United States*, 384 F.2d 391, 398, 155 USPQ 697, 703).

In view of the above amendments, Johnson clearly does not teach all of the claim limitations, as its other element (20) does not abuttingly engages the surface of the air bag (3).

Applicants also do not see a motivation or reason to combine the references as advanced by the Examiner, since claim 6 is directed to a component of the braking device and Ring does not contribute to the structure of claim 6.

Thus, it is believed that the combination of Johnson and Ring fails to establish *prima facie* case of obviousness of the claimed invention of the independent claim 6.

Regarding the rejection of claim 9, such claim has been amended in concert with amendments to independent claims 1 and 6. No new matter has been added. Thus, in a first aspect, the combination of Johnson and Ring fails to teach all of the claim limitations of the independent claim 9.

In a second aspect, since Johnson already provides an air bag actuator, Applicants find that "a person of ordinary skill in the art having common sense at the time of the invention would not have reasonably looked to Ring to solve a problem already solved by Johnson" *Ex Parte Rinkevich et al*, Appeal 20071317, decided May 29, 2007.

In a third aspect, Ring fully encases its air bag actuator (58) within the casing (50) and specifically provides a return spring (70) mounted within the same casing and axially aligned

with the air bag actuator (58). Johnson provides essentially an open air bag actuator (3). Thus, the combination of Johnson and Ring, as advanced by the Examiner, must result in the substantially closed air bag. Such combination teaches away from the claimed invention of claim 9.

In a forth aspect, such combination also changes the principle of operation of the primary reference being modified. In addition to Johnson using essentially an open air bag actuator (3), Johnson, in the preferred embodiment of FIGS. 6(a)-6(c), does not use a spring or, in an alternative embodiment of FIG. 8, connects the spring (30) by a link (31) to the assembly containing essentially open air bag actuator (3). Johnson, as modified by Ring, would have led an artisan skilled in the art to fully enclose the air bag actuator and further mount a return spring in axial alignment therewith.

MPEP 2143. 01 governs here in that "If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)".

Finally, the teachings of the prior art references conflict.

Thus, the combination of Johnson and Ring clearly fails to establish *prima facie* case of obviousness of the claimed invention of the independent claim 9.

Regarding the rejection of claim 11, Applicants do not find any evidence in description or figures that Johnson shows "the means for limiting reciprocal motion being in the form of a plate shown between the top of air spring 3 and the plate 18(a)." Johnson is clearly absent any plate between "the top of air spring 3 and the plate 18(a)". Furthermore, even if Johnson would have such plate, it would not be operable for limiting the reciprocal motion as Johnson is absent any teaching of external stops that would come in contact with plate 18(a) stopping its movement.

Regarding the rejection of claim 12, the Examiner is respectfully requested to note that claim 12 recites "...structure for limiting reciprocal motion of said brake actuator is a rigid member disposed internally within said air spring actuator". Applicants do not find any evidence in description or figures that Johnson teaches such internal stop and the Examiner failed to indicate exactly where or how Johnson achieves such operability.

Regarding the rejection of claim 18, Applicants respectfully point out that the air pressure regulator (26) of Johnson, like any air pressure regulator, is provided for controlling pressure of compressed air routed to such airbag.

More importantly, air pressure regulator (26) is disposed external to the airbag (3) and not "therein".

Claims 2-3 and 5 are depending from claim 1 and should be allowed as it is believed that claim 1 is in a condition for allowance over the combination of Johnson and Ring.

Claim 7 is depending from claim 6 and should be allowed as it is believed that claim 6 is in a condition for allowance over the combination of Johnson and Ring.

Claim 13 is depending from claim 9 and should be allowed as it is believed that claim 9 is in a condition for allowance over the combination of Johnson and Ring.

Accordingly, the Examiner is respectfully requested to withdraw the rejection of claims 1-3, 5-7, 9, 11-13, and 18 under 35 U.S.C. 103(a) as being unpatentable over US Patent 6792704 to Johnson in view of US Patent 6116385 to Ring.

Next, the Examiner rejected claims 1-3, 5-7, 9, 11-13, and 18 under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Ring and further in view of US Patent 6142480 to Streitman et al.

"Johnson, as modified, is not explicit with regards to the operating environment being characterized by a presence of detrimental extraneous foreign material.

Streitman et al. teach in col. 1 the use of a railway vehicle brake being in the environment characterized by a presence of detrimental extraneous foreign material.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a surrounding environment

characterized by detrimental extraneous foreign material, as taught by Streitman et al., since it is old and well-known in the art that vehicles operate in an environment marked by detrimental extraneous foreign material such as vehicle emissions and other harmful byproducts output from other machines."

Since it has been shown above that the combination of Johnson and Ring fails to establish *prima facie* case of obviousness of the claimed invention of the independent claims 1, 6 and 9, the combination of Johnson, Ring and Streitman et al. also fails to establish *prima facie* case of obviousness of the claimed invention of these claims.

Accordingly, the Examiner is respectfully requested to withdraw the rejection of claims 1-3,5-7,9, 11-13, and 18 under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Ring and further in view of US Patent 6142480 to Streitman et al.

Then, the Examiner rejected claims 4 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Ring and further in view of US Patent 3768826 to Hickman by stating that

"Johnson, as modified, shows the vertically disposed plate member being attached to the horizontal plate member of the air bag actuator, but is silent with regards to the attachment resulting from apertures (through which fasteners pass).

Hickman teaches in figure 15 the use of a vertically disposed plate 105 having at least one aperture (shown corresponding to the apertures on element 119) for enabling attachment to a horizontally disposed plate member 116 by way of

fasteners passing through the at least one aperture.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the means for enabling fastening of Johnson, as modified, to have included apertures, as taught by Hickman, in order to provide a functionally equivalent means of fastening two components to ensure proper operation of the device and two improve reliability."

Since it has been shown above that the combination of Johnson and Ring fails to establish *prima facie* case of obviousness of the claimed invention of the independent claims 1 and 6, the combination of Johnson, Ring and Hickman also fails to establish *prima facie* case of obviousness of the claimed invention of claims 4 and 8 depending from such claims 1 and 6 respectively.

Accordingly, the Examiner is respectfully requested to withdraw the rejection of claims 4 and 8 under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Ring and further in view of US Patent 3768826 to Hickman.

The Examiner also rejected claims 4 and 8 under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Ring and Hickman and further in view of Streitman et al by stating that

"Johnson, as modified, is not explicit with regards to the operating environment being characterized by a presence of detrimental extraneous foreign material.

Streitman et al. teach in col. 1 the use of a railway vehicle brake being in the environment

characterized by a presence of detrimental extraneous foreign material.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a surrounding environment characterized by detrimental extraneous foreign material, as taught by Streitman et al., since it is old and well-known in the art that vehicles operate in an environment marked by detrimental extraneous foreign material such as vehicle emissions and other harmful byproducts output from other machines."

Since it has been shown above that the combination of Johnson and Ring fails to establish *prima facie* case of obviousness of the claimed invention of the independent claims 1 and 6, the combination of Johnson, Ring and Streitman et al. also fails to establish *prima facie* case of obviousness of the claimed invention of claims 4 and 8 depending from such claims 1 and 6 respectively.

Accordingly, the Examiner is respectfully requested to withdraw the rejection of claims 4 and 8 under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Ring and Hickman and further in view of Streitman et al.

Next, the Examiner also rejected claims 10 and 22 under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Ring and further in view of US Patent 4693486 to Pierce and stated

"Re: claims 10 and 22. See the rejection of claim 9 for claim 22 and Johnson, as modified, shows a pair of elongated members 19, 19 each of the pair of elongated member extending outwardly and substantially perpendicular to the first substantially vertically disposed plate, but is

silent with regards to the aperture formed therethrough adjacent to and spaced from a distal end thereof.

Pierce teaches in col. 4 lines 36-39 the use of a member having an aperture formed therethrough.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the members of Johnson, as modified, to have included an aperture formed therethrough, as taught by Pierce, in order to provide a means of reducing the overall weight of the assembly."

Regarding the rejection of claim 10, since it has been shown above that the combination of Johnson and Ring fails to establish *prima facie* case of obviousness of the claimed invention of the independent claim 9, the combination of Johnson, Ring and Pierce also fails to establish *prima facie* case of obviousness of the claimed invention of claim 10, depending from such claim 9, and claim 22 formed by a combination of claims 9 and 10.

Accordingly, the Examiner is respectfully requested to withdraw the rejection of claims 10 and 22 under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Ring and further in view of US Patent 4693486 to Pierce.

The Examiner also rejected claims 10 and 22 under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Ring and Streitman as applied above, and further in view of US Patent 4693486 to Pierce and stated that

"Johnson, as modified, is not explicit with regards to the operating environment being

characterized by a presence of detrimental extraneous foreign material.

Streitman et al. teach in col. 1 the use of a railway vehicle brake being in the environment characterized by a presence of detrimental extraneous foreign material.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a surrounding environment characterized by detrimental extraneous foreign material, as taught by Streitman et al., since it is old and well-known in the art that vehicles operate in an environment marked by detrimental extraneous foreign material such as vehicle emissions and other harmful byproducts output from other machines."

Since it has been shown above that the combination of Johnson and Ring fails to establish *prima facie* case of obviousness of the claimed invention of the independent claim 9, the combination of Johnson, Ring, Streitman and Pierce also fails to establish *prima facie* case of obviousness of the claimed invention of claim 10, depending from such claim 9, and claim 22 formed by a combination of claims 9 and 10.

Accordingly, the Examiner is respectfully requested to withdraw the rejection of claims 10 and 22 under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Ring and Streitman as applied above, and further in view of US Patent 4693486 to Pierce.

Then, the Examiner rejected claims 16 and 17 under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Ring as applied to claim 9 above, and further in view of US Patent 4846785 to Cassou et al. The Examiner stated that

"Johnson, as modified, describes the invention substantially as set forth above, but does not include the limitation of a visual travel indicator.

Cassou et al. teach in col. 4 lines 2-5 the limitation of an actuator including a visual travel indicator or markings 20.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Johnson, as modified, to have included a visual travel indicator, as taught by Cassou et al., in order to provide a means of monitoring the operation of the air spring actuator to ensure that is inflating and deflating to acceptable levels."

Since it has been shown above that the combination of Johnson and Ring fails to establish *prima facie* case of obviousness of the claimed invention of the independent claim 9, the combination of Johnson, Ring, and Cassou et al. also fails to establish *prima facie* case of obviousness of the claimed invention of claims 16 and 17 depending from such claim 9.

Accordingly, the Examiner is respectfully requested to withdraw the rejection of claims 10 and 22 under 35 U.S.C. 103(a) as being unpatentable over Johnson in view of Ring as applied to claim 9 above, and further in view of US Patent 4846785 to Cassou et al.

The Examiner also rejected claims 16 and 17 under 35 U.S.C. 103(a) as being unpatentable over Johnson and Ring in view of Streitman et al. as applied to claim 9 above, and further in view of US Patent 4846785 to Cassou et al. by stating that

"Johnson, as modified, describes the invention substantially as set forth above, but does not include the limitation of a visual travel indicator.

Cassou et al. teach in col. 4 lines 2-5 the limitation of an actuator including a visual travel indicator or markings 20.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Johnson, as modified, to have included a visual travel indicator, as taught by Cassou et al., in order to provide a means of monitoring the operation of the air spring actuator to ensure that is inflating and deflating to acceptable levels."

Since it has been shown above that the combination of Johnson and Ring fails to establish *prima facie* case of obviousness of the claimed invention of the claim 9, the combination of Johnson, Ring, Streitman et al. and Cassou et al. also fails to establish *prima facie* case of obviousness of the claimed invention of claims 16 and 17 depending from claim 9.

Accordingly, the Examiner is respectfully requested to withdraw the rejection of claims 16 and 17 under 35 U.S.C. 103(a) as being unpatentable over Johnson and Ring in view of Streitman et al. as applied to claim 9 above, and further in view of US Patent 4846785 to Cassou et al.

Further, the Examiner rejected claims 19, 20, and 21 under 35 U.S.C. 103(a) as being unpatentable over Admitted prior art recited above the "improvement" phrase in claim 19 in view of Johnson. The Examiner stated in support of this rejection that

"The admitted prior art recites the railway environment, but the admitted prior art is silent as to the specific detail of the air spring actuator.

Johnson teaches in figures 1 and 2 an air spring actuator 1 comprising: a first substantially vertically disposed plate like member or one of elements 20 having a first substantially planar surface and a means 12 connected to the first substantially vertically disposed plate like member via intervening elements for securing the air spring actuator to such second control linkage 6, a second substantially vertically disposed plate like member or other of elements 20 having a second substantially planar surface and a means 19 connected to the second substantially vertically disposed plate like member for securing the air spring actuator to one of the beam 10, such second force transmitting member and a combination thereof, and at least one inflatable air bag spring 3 having a pair of substantially vertically disposed planar surfaces 17,17 for engagement with and attachment to the first substantially planar surface of the first substantially vertically disposed plate like member and the second substantially planar surface of the second substantially vertically disposed plate like member via intervening elements whereby selective inflation and deflation of the at least one inflatable air bag spring in a longitudinal direction enables a reciprocal motion thereof to move such control linkages and such force transmitting members for actuating and deactuating such brake beams wherein an exterior surface of the at least one inflatable air bag spring is at least partially exposed within such brake assembly to an atmosphere when such brake assembly is in use.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the air spring actuator of the admitted prior art to have included an air spring actuator, as taught by Johnson, in order to provide a means of maintaining the spring brake actuator in an exposed state to facilitate monitoring for maintenance purposes and to provide easy accessibility. With regards to claims 20 and 21, see element 18(a) as the means for shielding and guiding and aligning."

This rejection has been rendered moot by amendment to claim 19 now reciting in paragraph (c) "at least one inflatable air bag spring having a pair of substantially vertically disposed planar surfaces for abutting engagement with and attachment to each of said first substantially planar surface of said first substantially vertically disposed plate member and said second substantially planar surface of said second substantially vertically disposed plate member..."

Claims 20-21 are depending from claim 19 and should be allowed as it is believed that claim 19 is in a condition for allowance.

Accordingly, the Examiner is respectfully requested to withdraw the rejection of claims 19, 20, and 21 under 35 U.S.C. 103(a) as being unpatentable over Admitted prior art recited above the "improvement" phrase in claim 19 in view of Johnson.

Finally, the Examiner rejected claims 19-21 under 35 U.S.C. 103(a) as being unpatentable over Admitted prior art in view of Johnson and further in view of US Patent 6142480 to Streitman et al. The Examiner stated that

"Admitted prior art, as modified, is silent with regards to the operating environment being characterized by a presence of detrimental extraneous foreign material.

Streitman et al. teach in col. 1 the use of a railway vehicle brake being in the environment characterized by a presence of detrimental extraneous foreign material.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have included a surrounding environment characterized by detrimental extraneous foreign material, as taught by Streitman et al., since it is old and well-known in the art that vehicles operate in an environment marked by detrimental extraneous foreign material such as vehicle emissions and other harmful byproducts output from other machines."

Since it has been shown above that the combination of Admitted prior art and Johnson fails to establish *prima facie* case of obviousness of the claimed invention of the claim 20, the combination of Admitted prior art in view of Johnson and further in view of US Patent 6142480 to Streitman et al. also fails to establish *prima facie* case of obviousness of the claimed invention of claim 20.

Accordingly, the Examiner is respectfully requested to withdraw the rejection of 19-21 under 35 U.S.C. 103(a) as being unpatentable over claims Admitted prior art in view of Johnson and further in view of US Patent 6142480 to Streitman et al.

CONCLUSIONS

In view of the above amendments to the claims and the remarks associated therewith, Applicant believes that Independent Claims 1, 6, 9, 19 and 22 are in a condition for allowance and such allowance by the Examiner is respectfully requested. Since it is believed that Independent Claims 1, 6, 9, and 19 are in condition for allowance, their dependent claims further providing limitations are also in a condition for allowance.

In the event the Examiner has further difficulties with the election, the Examiner is invited to contact the undersigned agent by telephone at 847-687-8804 to resolve any remaining questions or issues by interview and/or by Examiner's amendment as to any matter that will expedite the completion of the prosecution of the application.

Respectfully submitted,



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